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CONFIRMATION NO. 1247

CORRECTED FILING RECEIPT



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Domestic Priority data as claimed by applicant

This application is a 371 of PCT/JP00/02582 04/20/2000

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If Required, Foreign Filing License Granted: 02/13/2001

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Title

OPTICAL FERRULE AND MOLDING METHOD THEREFOR, AND OPTICAL CONNECTOR
USING THIS OPTICAL FERRULE

Preliminary Class

385

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US007232261B1

(12) United States Patent
Nishumura et al.**(10) Patent No.: US 7,232,261 B1**
(45) Date of Patent: Jun. 19, 2007**(54) OPTICAL FERRULE AND MOLDING METHOD THEREFOR, AND OPTICAL CONNECTOR USING THIS OPTICAL FERRULE**5,923,803 A * 7/1999 Bunin et al. 385/80
5,975,770 A * 11/1999 Yanagi et al. 385/78**(75) Inventors: Akito Nishumura, Sakura (JP); Toru Arikawa, Sakura (JP); Yasuhiro Tamaki, Sakura (JP)****FOREIGN PATENT DOCUMENTS**

EP 0938003 8/1999

(73) Assignee: Fujikura Ltd., Tokyo (JP)**(*) Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(Continued)

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(Continued)

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(74) *Attorney, Agent, or Firm*—Chadbourne & Parke LLP**(21) Appl. No.: 09/720,235****(22) PCT Filed: Apr. 20, 2000****(86) PCT No.: PCT/JP00/02582**§ 371 (c)(1),
(2), (4) Date: **Dec. 20, 2000****(87) PCT Pub. No.: WO00/65392****(57) ABSTRACT**PCT Pub. Date: **Nov. 2, 2000****(30) Foreign Application Priority Data**Apr. 23, 1999 (JP) 11-115867
Mar. 30, 2000 (JP) P2000-095908**(51) Int. Cl.**
G02B 6/36 (2006.01)**(52) U.S. Cl.** **385/78****(58) Field of Classification Search** 385/64,
385/82, 52, 77, 78

See application file for complete search history.

(56) References Cited**U.S. PATENT DOCUMENTS**4,911,518 A * 3/1990 Miller 385/78
5,381,500 A * 1/1995 Edwards et al. 385/78

An optical ferrule is disclosed in which a concave portion 17c having a gate G in resin molding disposed therein is formed in a ferrule body 11. According to this constitution, it is possible to easily cut a flash 10 left after a gate of the concave portion 17c of the ferrule body 11 is cut after molding with a gate cutter, so that, when the ferrule body 11 is fitted in a housing of an MPO connector and the like, the problem that the flash 10 protrudes from the concave portion 17c and the flash 10 hitching to an inner wall of the housing does not occur. Accordingly, the labor required for removing the flash 10 by polishing can be eliminated, and hence productivity of the ferrule body 11 can be improved. Thus, a large number of ferrule bodies 11 can be automatically manufactured without requiring much manpower.

12 Claims, 16 Drawing Sheets